In the claims:

1. (cancelled)

2. (currently amended) A method of making ~~a~~ an original far call or far branch instruction to a target address using a near call or near branch instruction that is capable of only the transfer of program control a limited distance from address of ~~a~~ the near call or branch instruction to ~~a~~ the target address comprising the steps of: determining if a transfer of control is beyond said limited distance for said ~~a~~ near call or near branch ~~limitation~~ instruction, and, if so, generating a link time modification of object code by a compiler or assembler and by the addition of custom generated object code or trampoline code to the link time object code, without changing the compiler generated instructions or expanding compiler generated object code, for a long distance transfer of control by redirecting the original far call or branch instruction to a code which will transfer control to the target address and wherein if resources are a problem a step of using a sequence of trampolines with trampoline codes is further included.

3. (cancelled)

4. (previously amended) A method of branch or call instructions comprising the steps of: the compiler or assembler generating near-call instructions for all external calls, and near-return instructions for all global subroutine returns, ignoring link-time layout of sections; the linker allocating all object code sections, with no need to take into account the limitations of near-branch instructions; for each near external call C, the linker computing the distance from C to its target T and performing the following

steps: determining if the call C and target T are allocated close enough to each other to permit a near call and if so, then call C performs a near call to target T directly with no modification and return to consider the next call; otherwise if there is there already a trampoline S1 to target T that is linkably close enough to call C to permit a near call, then modifying call C to point to call B1 in S1 and returning to consider the next call; otherwise, creating trampoline section S1 and modifying call C to point to call B1 in S1 and add any necessary setup code to S1 and continue with following steps of determining if a second trampoline S2 is needed to reach target T and, if not, then assigning call B1 in S1 to contain a far call to target T, and return to consider the next call; otherwise, determining if a second trampoline S2 already exists to reach target T and if so, then modifying call B1 in S1 to point to existing call B2 in existing S2, and return to consider the next call; otherwise, creating a second trampoline S2 and modifying S1 to perform a far call to call B2 in S2 and add any necessary setup code to S2 and subroutine call B2 in S2 is made to contain a near call to target T and return to consider the next call.

5. (cancelled)

6. (cancelled)

7. (cancelled)

8. (currently amended) A method of making a far call or far branch instruction using a near call or near branch instruction that is capable of only transferring of program control a limited distance from address of a branch instruction to a target address comprising the steps of: computing if the target address is too far distant from the

near branch or near call limited distance; if it is too far distant then determining if there already is a trampoline section to the target address and if so redirect the far call or far branch instruction to that trampoline section and if there is not already a trampoline section to the target address then generating a trampoline section to the target address and redirect the near call or branch to the generated trampoline section and wherein if a single trampoline fails to work because of resources, then included are the steps of: generating a second trampoline and generating a far branch or call from said first trampoline to the second trampoline section and generating at the second trampoline section a near call or branch to the target address.

9. (currently amended) The method of Claim 8 including the step of returning to an original call by returning the control through the trampoline sections wherein the a return is a near return from the target address to the second trampoline, a far return from the second trampoline to the first trampoline, and a near return from the first trampoline to the original call.

10. (new) A method of making an original far call (or far branch) instruction to a target address using a near call (or near branch) instruction that is capable of only the transfer of program control a limited distance from address of the near call (or branch) instruction to the target address comprising the steps of: determining if a transfer of control is beyond said limited distance for said near call (or near branch) instruction, and, if so, generating a link time modification of object code by a compiler (or assembler) and by the addition of custom generated trampoline code to the link time object code for a long distance transfer of control by redirecting the original far call (or branch) instruction to a code which will transfer control to the

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target address and wherein if resources are a problem a step of using a sequence of

trampolines with trampoline codes is further included.